## Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

## **Listing of Claims:**

- 1.-36. (Cancelled).
- 37. (Currently Amended) A method for monitoring a well operation, comprising:
  running a service tool into the well;
  delivering a material through the service tool; and
  monitoring a characteristic of the material with the service tool;
  measuring a well characteristic using one or more of a sensor and a fiber optic
  line that is separate from the service tool; and
  comparing the characteristic measured by the service tool to the well
  characteristic.
- 38. (Previously presented) The method of claim 37, wherein monitoring is performed using one or more of a sensor and a fiber optic line in the service tool.
- 39. (Previously Presented) The method of claim 37, further comprising monitoring the material exiting the service tool.
  - 40. (Cancelled).
- 41. (Previously presented) The method of claim 37, wherein running comprises running a thru-tubing service tool into the well.
- 42. (Previously presented) The method of claim 37, wherein monitoring comprises using a fiber optic line in the service tool.
- 43. (Previously presented) The method of claim 42, wherein using comprises running the fiber optic line along a nonlinear path.

- 44. (Previously presented) The method of claim 42, wherein using comprises running the fiber optic line along a generally helical path.
- 45. (Previously presented) The method of claim 37, wherein monitoring comprises monitoring temperature.
- 46. (Previously Presented) The method of claim 37, wherein delivering comprises delivering a gravel slurry.
  - 47.-57. (Cancelled).
- 58. (Currently Amended) A method of servicing a well, comprising:
  utilizing an intelligent service tool to deliver a material gravel slurry to a
  desired location in a well; and

monitoring the material at the service tool during delivery of the material gravel slurry.

- 59.-61. (Cancelled).
- 62. (Currently Amended) The method of claim 58, wherein monitoring comprises measuring a temperature of the material gravel slurry.
- 63. (Previously presented) The method of claim 58, wherein monitoring comprises utilizing a sensor disposed within the service tool.
- 64. (Previously presented) The method of claim 58, wherein monitoring comprises utilizing a fiber optic disposed within the service tool.
- 65. (Previously presented) The method of claim 58, further comprising connecting the intelligent service tool to a service string and deploying the service string within a production tubing.

- 66. (Currently Amended) A system for monitoring a well operation, comprising: means for running a service tool into the well; means for delivering a material gravel slurry through the service tool; and means for monitoring a characteristic of the material gravel slurry with the service tool.
- 67. (Previously presented) The system of claim 66, wherein the means for running comprises a service string.
- 68. (Previously presented) The system of claim 66, wherein the means for delivering comprises a service tool outlet.
- 69. (Previously presented) The system of claim 66, wherein the means for monitoring comprises a sensor disposed within the service tool.
  - 70. (New) A method for monitoring a well operation, comprising:
    running a service tool into the well;
    delivering a gravel slurry through the service tool;
    monitoring a characteristic of the gravel slurry with the service tool.
- 71. (New) The method of claim 70, wherein monitoring is performed using one or more of a sensor and a fiber optic line in the service tool.
- 72. (New) The method of claim 70, further comprising monitoring the gravel slurry exiting the service tool.
- 73. (New) The method of claim 70, wherein running comprises running a thru-tubing service tool into the well.
- 74. (New) The method of claim 70, wherein monitoring comprises using a fiber optic line in the service tool.
- 75. (New) The method of claim 74, wherein using comprises running the fiber optic line along a nonlinear path.

- 76. (New) The method of claim 74, wherein using comprises running the fiber optic line along a generally helical path.
- 77. (New) The method of claim 70, wherein monitoring comprises monitoring temperature.